

As part of the school's M.D. curriculum transformation, each student is required to complete a scholarly project. Scholarly Projects offer an in-depth investigation of topics of interest to students during the course of their medical school experiences with the goal of creating critical thinkers and lifelong learners. In this curriculum, students attend a basic course on design and conduct of research and scholarly work, identify projects and mentors, prepare project proposals, complete activities of their projects, and prepare final products including reports, presentations, and other deliverables. Students meet specific benchmarks throughout their participation to document their progress.

Essential components of the Scholarly Projects experience include:

- Identifying an important scientific or clinical question.
- Assessing, evaluating, and applying scientific literature.
- Formulating a project hypothesis based on current evidence and concepts in the field.
- Designing, conducting, and interpreting results of students' own projects.
- Identifying relevance.
- Communicating effectively in oral and written form.
- Applying ethics and professionalism throughout the project.

Working with faculty project mentors, students lead their own scholarly projects focusing on any of a wide range of topics relevant to health and medicine. Most projects will be designed as research studies, although many other types of projects are acceptable (e.g., engineering, informatics, arts). Regardless of the type of project, all must be scholarly in the sense that they meet standards for investigative work in their respective fields. While each student leads their own project, collaborations with other students on specific aspects of the project are acceptable (e.g. data collection). Current MD/PhD and MD/MPH students meeting benchmarks in other ways are not required to complete scholarly projects.

While many types of projects qualify as scholarly projects, certain elements are essential to all types. Scholarly Project faculty and project mentors guide students in planning projects that fit these criteria:

- The question is important and currently unanswered.
- Uses the best method to answer the question.
- Method is feasible and likely to succeed.
- Could be completed within the time frame.
- Appropriate mentor and resources are available.
- The project connects to students' skills, interests, passions, and goals.

In addition to project mentors, students work with the Scholarly Project faculty in large and small groups. These include the director, Heidi D. Nelson MD, MPH, Research Professor of Medical Informatics and Clinical Epidemiology, six concentration leads, research librarians, and biostatisticians who all work together to guide projects across their four-year life cycles. Concentration leads are aligned with the following areas, although projects are not confined to this list:

- *Basic research and biomedical engineering:* Peter Mayinger, PhD, Associate Professor of Medicine, Division of Nephrology and Hypertension.
- *Clinical research:* Lisa Silbert, MD, MCR, Associate Professor of Neurology, and Eneida Nemecek MD, MS, MBA, Associate Professor of Pediatrics, Division of Hematology and Oncology, and Adult Medical Hematology and Oncology, Knight Cancer Institute.
- *Epidemiology, community and global health:* Craig Warden, MD, MPH, MS, Professor of Emergency Medicine and Pediatrics.
- *Ethics, quality improvement and education:* Erik Fromme MD, MCR, Associate Professor of Medicine, Radiation Medicine, and Nursing.
- *Health law, business and health policy:* Mark Baskerville MD, JD, MBA Assistant Professor of Anesthesiology and Perioperative Medicine.